

AMENDMENTS TO THE CLAIMS:

The following is a complete listing of all claims, including amendments, with a status identifier in parenthesis.

Listing of Claims

1. (Currently Amended) A magnetic material comprising:
a semiconductor [an amorphous material]; and
an electrical conductivity adjusting [a] dopant, wherein the semiconductor [amorphous material] displays ferromagnetic [magnetic] behavior, and wherein the magnetic material does not contain Cr, Mn, Co, Ni, or Fe, and further wherein the magnetic material has a conductivity in the range of between 1×10^4 ($\Omega \text{ cm}$) $^{-1}$ and 1×10^{-10} ($\Omega \text{ cm}$) $^{-1}$.
2. (Currently Amended) A magnetic material according to claim 1, wherein the semiconductor [amorphous material] includes a nanoparticle.
3. (Currently Amended) A magnetic material according to claim 1, wherein said electrical conductivity adjusting dopant comprises a dopant selected from n-type and p-type dopants.
4. (Currently Amended) A magnetic material according to claim 2, wherein said electrical conductivity adjusting dopant comprises a dopant selected from n-type and p-type dopants.

5. (Currently Amended) A magnetic material according to claim 1, wherein said electrical conductivity adjusting dopant comprises a dopant selected from [transition metals], alkaline earth metals, alkali metals, and rare earth elements.

6. (Currently Amended) A magnetic material according to claim 2, wherein said electrical conductivity adjusting dopant comprises a dopant selected from [transition metals], alkaline earth metals, alkali metals, and rare earth elements.

7. (Currently Amended) A magnetic material according to claim 1, wherein said semiconductor [amorphous material] has a defect density of at least 1×10^{20} defects/cm³.

8. (Currently Amended) A magnetic material according to claim 2, wherein said semiconductor [magnetic amorphous] has a defect density of at least 1×10^{20} defects/cm³.

9. (Currently Amended) A magnetic material according to claim 1, wherein said semiconductor [amorphous material] comprises silicon.

10. (Currently Amended) A magnetic material according to claim 2, wherein said semiconductor [amorphous material] comprises silicon.

11. (Currently Amended) A magnetic material according to claim 10, wherein said nanoparticle comprises [nanoparticles comprise] silicon.

12. (Currently Amended) A magnetic material according to claim 1, wherein said semiconductor [amorphous material] comprises a material selected from III-V semiconductors or II-VI semiconductors.

13. (Currently Amended) A magnetic material according to claim 2, wherein said semiconductor [amorphous material] comprises a material selected from III-V semiconductors or II-VI semiconductors.

14. (Currently Amended) A magnetic material according to claim 1, wherein said magnetic [amorphous] material comprises a metal.

15. (Currently Amended) A magnetic material according to claim 2, wherein said magnetic [amorphous] material comprises a metal.

16. (Currently Amended) A magnetic material according to claim 2, wherein said nanoparticles comprise a material selected from at least one of a Group III element and a Group V element.

17. (Currently Amended) A magnetic material according to claim 2, wherein said nanoparticles comprise a material selected from at least one of a Group II element and a Group V1 element.

18. (Currently Amended) A material comprising:
a semiconductor selected from Si, Ge, and SiGe, [an amorphous material],
wherein said semiconductor [amorphous material] displays ferromagnetic behavior
[comprises a ferromagnetic semiconductor]; and

a dopant, wherein the material has a conductivity in the range of between 1×10^4 $(\Omega \text{ cm})^{-1}$ and $1 \times 10^{-10} (\Omega \text{ cm})^{-1}$.

19. (Currently Amended) A material according to claim 18, wherein the semiconductor [amorphous material] includes a nanoparticle.

20. (Original) A material according to claim 18, wherein said dopant comprises a dopant selected from n-type and p-type dopants.

21. (Original) A material according to claim 19, wherein said dopant comprises a dopant selected from n-type and p-type dopants.

22. (Original) A material according to claim 18, wherein said dopant comprises a dopant selected from transition metals, alkaline earth metals, alkali metals, and rare earth elements.

23. (Original) A material according to claim 19, wherein said dopant comprises a dopant selected from transition metals, alkaline earth metals, alkali metals, and rare earth elements.

24. (Currently Amended) A material according to claim 18, wherein said [amorphous] material has a defect density of at least 1×10^{20} defects/cm³.

25. (Newly Added) A magnetic material comprising:
a metal that displays ferromagnetic behavior, wherein the magnetic material does not contain Cr, Mn, Co, Ni, or Fe.